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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/911,042	07/23/2001	Takumi Okaue	SONYJP 3.0-190	3744

530 7590 09/13/2007
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EXAMINER

POPHAM, JEFFREY D

ART UNIT	PAPER NUMBER
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2137

MAIL DATE	DELIVERY MODE
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09/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/911,042

Applicant(s)

OKAUE, TAKUMI

Examiner

Jeffrey D. Popham

Art Unit

2137

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>20070604</u> |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Remarks

Claims 1-24 are pending.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 7/2/2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 8, 12, 13, 20, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (U.S. Patent 6,289,102) in view of Proudler (U.S. Patent 7,236,455).

Regarding Claim 1,

Ueda discloses a data processing apparatus for receiving data from or delivering data to a storage device, the storage device

being external to the data processing apparatus and including a memory, the data received from the external storage device being reproduced from the memory and the data delivered to the external storage device being recorded in the memory, the receiving or delivering ordinarily being carried out on condition that mutual authentication between the data processing apparatus and the storage device is successful, the data processing apparatus comprising:

A virtual storage device and a first structure each operable to alternatively execute mutual authentication between the first structure and the virtual storage device when the external storage device does not include any structure operable to execute the mutual authentication and is not operable to enable such mutual authentication so that the mutual authentication is carried out solely within the data processing apparatus (Figures 14-16; Column 23, lines 26-61; and Column 37, lines 5-40); and

A second structure operable to receive the data from the external storage device or to deliver data to the external storage device when the mutual authentication between the first structure and the virtual storage device is successful (Figures 14-16; Column 23, line 49 to Column 24, line 17; and Column 25, lines 1-16).

Proudlar also discloses a virtual storage device and a structure operable to alternatively execute mutual authentication

between the structure and the virtual storage device in order to gain access to the apparatus, and the components thereof and connected to such apparatus (Column 9, lines 4-11; and Column 12, line 47 to Column 13, line 49). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the trusted device mutual authentication processing of Proudler into the recording and reproducing system of Ueda in order to increase the level of trust and security in the entire apparatus and/or to ensure that both a proper smart card and trusted platform authenticate each other before use thereof is allowed, while maintaining such trust and security while the platform is in use.

Regarding Claim 8,

Claim 8 is a method claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 12,

Claim 12 is a computer readable medium claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 13,

Claim 13 is an apparatus claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 20,

Claim 20 is a method claim that is broader than apparatus claim 1 and is rejected for the same reasons.

Regarding Claim 24,

Claim 24 is a computer readable medium claim that is broader than apparatus claim 1 and is rejected for the same reasons.

3. Claims 2, 9, 14, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Proudler, further in view of Ansell (U.S. Patent 6,367,019).

Regarding Claim 2,

Ueda as modified by Proudler does not disclose initially checking whether the external storage device includes a structure operable to execute the mutual authentication.

Ansell, however, discloses initially checking whether the external storage device includes a structure operable to execute the mutual authentication (Column 12, lines 30-41). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the copy security system of Ansell into the recording and reproducing system of Ueda in order to allow copyrightable content of digital storage media to be protected against unauthorized copying, whether the storage media is functional or non-functional.

Art Unit: 2137

Regarding Claim 9,

Claim 9 is a method claim that is broader than apparatus claim 2 and is rejected for the same reasons.

Regarding Claim 14,

Claim 14 is an apparatus claim that is broader than apparatus claim 2 and is rejected for the same reasons.

Regarding Claim 21,

Claim 21 is a method claim that is broader than apparatus claim 2 and is rejected for the same reasons.

4. Claims 3, 5-7, 10, 15, 17-19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Proudler, further in view of Dondeti (U.S. Patent 6,240,188).

Regarding Claim 3,

Ueda as modified by Proudler discloses the apparatus of claim 1, in addition, Ueda discloses that the first structure and the virtual storage device execute the mutual authentication between the first structure and the virtual storage device by applying a distributed key and another authenticating key previously stored in the virtual storage device (Figures 14-16; Column 23, line 26 to Column 24, line 17; and Column 37, line 5 to Column 38, line 51);

But does not disclose a key is provided for authenticating distribution of an enabling key block, the key having been

previously enciphered by the enabling key block, the enabling key block containing enciphering data for enciphering renewal keys which are located on various paths of a hierarchical key tree structure, the hierarchical tree structure having a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, whereby a given one of the plurality of paths of the key tree structure extends from a specific one of the roots to a particular one of the leaves of the key tree structure, the leaves of the tree structure being respectively associated with a plurality of data processing apparatuses, the enciphering data including upper-rank keys in the tree hierarchy which are enciphered by lower-rank keys.

Dondeti, however, discloses that a key is provided for authenticating distribution of an enabling key block, the key having been previously enciphered by the enabling key block, the enabling key block containing enciphering data for enciphering renewal keys which are located on various paths of a hierarchical key tree structure, the hierarchical tree structure having a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, whereby a given one of the plurality of paths of the key tree structure extends from a specific one of the roots to a particular one of the leaves of the key tree structure, the leaves of the tree structure being respectively

Art Unit: 2137

associated with a plurality of data processing apparatuses, the enciphering data including upper-rank keys in the tree hierarchy which are enciphered by lower-rank keys (Column 3, line 48 to Column 4, line 21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the hierarchical key tree structure of Dondeti into the recording and reproducing system of Ueda in order to make the system scalable to allow for the additional and modification of many processing apparatuses.

Regarding Claim 10,

Claim 10 is a method claim that is broader than apparatus claim 3 and is rejected for the same reasons.

Regarding Claim 15,

Claim 15 is an apparatus claim that is broader than apparatus claim 3 and is rejected for the same reasons.

Regarding Claim 22,

Claim 22 is a method claim that is broader than apparatus claim 3 and is rejected for the same reasons.

Regarding Claim 5,

Ueda as modified by Proudler and Dondeti discloses the apparatus of claim 3, in addition, Dondeti discloses means for subjecting the enabling key block distribution authenticating key to a version controlling process by executing a process for renewing

individual versions (Column 1, lines 30-46; and Column 3, line 48 to Column 4, line 21).

Regarding Claim 17,

Claim 17 is an apparatus claim that is broader than apparatus claim 5 and is rejected for the same reasons.

Regarding Claim 6,

Ueda as modified by Proudler does not disclose that a key tree structure is provided comprising a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths whereby a given one of the paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, a plurality of data processing apparatuses being respectively associated with the leaves of the tree, and the data processing apparatus further comprises: means for enciphering leaf-keys associated with the leaves using a storage key that is proper to an individual one of the data processing apparatuses and then storing the enciphered leaf-key in a memory means within a corresponding data processing apparatus.

Dondeti, however, discloses that a key tree structure is provided comprising a plurality of keys associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths whereby a given

one of the paths extends from a specific one of the roots to a particular one of the leaves of the key tree structure, a plurality of data processing apparatuses being respectively associated with the leaves of the tree (Column 3, line 48 to Column 4, line 21), and the data processing apparatus further comprises: means for enciphering leaf-keys associated with the leaves using a storage key that is proper to an individual one of the data processing apparatuses and then storing the enciphered leaf-key in a memory means within a corresponding data processing apparatus (Column 3, line 48 to Column 4, line 21). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the hierarchical key tree structure of Dondeti into the recording and reproducing system of Ueda in order to make the system scalable to allow for the additional and modification of many processing apparatuses.

Regarding Claim 18,

Claim 18 is an apparatus claim that is broader than apparatus claim 6 and is rejected for the same reasons.

Regarding Claim 7,

Ueda as modified by Proudler does not disclose that a key tree structure is provided comprising a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of

paths that extend from the roots to the leaves of the key tree structure, a plurality of data processing apparatuses respectively corresponding to the leaves of the tree and to leaf-keys that further correspond with the leaves; and a device key block is stored in a memory within the processing apparatus, the key block being an assemblage of ciphered keys comprising mutually different individually enciphered node keys of plural steps extending from the leaves of the tree structure up to upper-rank keys of the tree structure.

Dondeti, however, discloses that a key tree structure is provided comprising a plurality of keys respectively associated with various roots of the tree structure, nodes of the tree structure, and leaves of the tree structure, and having a plurality of paths that extend from the roots to the leaves of the key tree structure, a plurality of data processing apparatuses respectively corresponding to the leaves of the tree and to leaf-keys that further correspond with the leaves (Column 3, line 48 to Column 4, line 21); and a device key block is stored in a memory within the processing apparatus, the key block being an assemblage of ciphered keys comprising mutually different individually enciphered node keys of plural steps extending from the leaves of the tree structure up to upper-rank keys of the tree structure (Column 3, line 48 to Column 4, line 21). It would have been obvious to one of ordinary skill in

Art Unit: 2137

the art at the time of applicant's invention to incorporate the hierarchical key tree structure of Dondeti into the recording and reproducing system of Ueda in order to make the system scalable to allow for the additional and modification of many processing apparatuses.

Regarding Claim 19,

Claim 19 is an apparatus claim that is broader than apparatus claim 7 and is rejected for the same reasons.

5. Claims 4, 11, 16, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Proudler and Dondeti, further in view of Harada (U.S. Patent 6,850,914).

Regarding Claim 4,

Ueda as modified by Proudler and Dondeti discloses the apparatus of claim 3, in addition, Dondeti discloses that only a proper data processing apparatus is enabled to decode the enabling key block, whereas an improper apparatus is unable to decode the enabling key block (Column 3, line 48 to Column 4, line 21); but does not disclose the use of licensing to determine which data processing apparatuses are proper and which are not, or revoking improper data processing apparatuses.

Harada, however, discloses the use of licenses to determine which data processing apparatuses are proper and which are not

and revoking an improper data processing apparatus (Column 5, lines 15-67). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the licensing and revocation system of Harada into the recording and reproducing system of Ueda as modified by Dondeti in order to provide for dynamic revocation of data processing apparatuses, such that revocation lists can be updated in a timely and efficient manner, thus allowing all proper apparatuses to know which other apparatuses are proper and which are revoked.

Regarding Claim 11,

Claim 11 is a system claim that is broader than apparatus claim 4 and is rejected for the same reasons.

Regarding Claim 16,

Claim 16 is an apparatus claim that is broader than apparatus claim 4 and is rejected for the same reasons.

Regarding Claim 23,

Claim 23 is a system claim that is broader than apparatus claim 4 and is rejected for the same reasons.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey D. Popham whose telephone number is (571)-272-7215. The examiner can normally be reached on M-F 9:00-5:30.

Art Unit: 2137

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571)272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey D Popham
Examiner
Art Unit 2137


EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER